1:Beaglehole and Beaglehole E-5 (1934-5)1938 Pukapukans

[342] adapted to withstand the fierce gales from the northwest that strike this exposed beach with full force.

341 339 Model house combining features from both the *wale mukayamoa* and the *wale atua* types. This house has five wall posts on either side, two wall plates, and six tiebeams, which project beyond the end of the wall plates and support two roof plates. There are four ridgeposts, one on the inside of each of the end tiebeams and one on the outer sides of the third and fourth tiebeams. Eight principal rafters on each side run from the roof plates and cross above the main ridgepole to support a rafter ridgepole (*tau lua*). There are two purlins on either side, an eaves purlin and a midway purlin. The midway purlin on one side is narrower than that on the other side. In order to keep the thatch rafters on both sides equidistant from the principal rafters, the narrower purlin is given additional width by chocks (*seinei*) inserted between purlin and rafters. Thatch rafters run on the outside of the purlins. At the top, they support on the under side a third ridgepole (or a thatch rafter ridgepole), *tautolu*, which is separated from the rafter ridgepole by chocks (*seinei*) but is lashed to the thatch rafters. On top of the crossed thatch rafters is laid a fourth ridgepole (or thatch ridgepole), *niu momoli* (fig.11,*b*). At the bottom, the thatch rafters support a thatch eaves purlin.

At each gable end, end wall plates (or additional tiebeams) are lashed at each end to the ends of the side wall plates. The principal end rafters are fastened at the top to the second side rafters, all save the center end rafter which is fastened to the main ridgepole between the second and third side rafters. At their lower ends, the end rafters are lashed to the end wall plate, but project downward and beyond this to support an end eaves purlin, which is itself fastened at each end to the side eaves purlins. The end wall plates are braced by two struts (*yaaka*) which are lashed to the two outer tiebeams and project far enough to be lashed to the end wall plates. The end thatch rafters run on the outside of the end eaves purlins to the first rafter on either side. On the bottom outside of the end thatch rafters is lashed a thatch rafter eaves purlin, which is itself joined at each end to the side thatch rafter eaves purlins. The ridgepole is further strengthened by two diagonal braces (*yaaka*), each brace running from the middle of the third tiebeam (counting from each end) to the main ridgepole, and lashed to both tiebeam and ridgepole.

341 335 284 The lashings of this house conform to Pukapukan pattern. The central principal rafters and the diagonal braces, which both lie against the main ridgepole obliquely, are lashed to the ridgepole by four transverse turns which are themselves tightened by three circumferential turns (*yaaa mukapoko*). The first and second ridgepoles and again the third and fourth ridgepoles are braced against each other by five transverse turns of sennit which are made taut by three or four circumferential turns, thus forming a suspended loop lashing (*yaaa mukamoa*; fig.10,*b*).

341 335 The variations in this model *wale atua* type house bring it close in type to the *mukayamoa* house, the only distinction being the use of ridgeposts in the model and the heavier construction of the roof framework. It was suggested by informants that the reason for projecting the tiebeams beyond the level of the wall plates, and then adding —of necessity—roof plates to support the principal rafters, is to protect wall posts of pandanus from exposure to the weather. By projecting the tiebeams a sufficient distance (from 12 to 18 inches), low eaves would give ample protection to the wall posts, especially if thin poles are run between the ends of the tiebeams and the ground to support wall sheets. If these poles rot, they can be replaced easily, but it is difficult to replace main wall posts without pulling down and rebuilding the roof framework.

House Furnishings

352 513 Furnishings of the Pukapukan house are of the simplest kind. People sleep on coconut leaf and pandanus sleeping mats laid on the coral pebble floor or on wooden platforms. When not in use, mats are rolled (*fapula*)

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and kept on rough platforms made by laying longitudinal members across the tiebeams of the house. Plaited pandanus satchels (*tuluma*, p. 134) for valued fishhooks and larger satchels of the same type for malos and other items of dress were also kept on the tiebeam platforms.

Plaited pandanus pillows (*ulunga laukuma*, p. 134) and wooden headrests (*ulunga lakau*; fig. 12, *d*) were in occasional use. Most people, however, did not go to the trouble of making a special pillow but used for this purpose any suitable block of wood. Soft driftwood was favorite material, a piece of cork of suitable size and thickness being most prized. Today, the usual headrest is a block of wood inserted into a European pillowcase and packed tight with a thin layer of kapok. This pillow combines a desired hardness with the prestige value of using a European object.

Wooden back rests (*toka*; fig. 12, *c*) were occasionally made in former times. Made of *uakauaua* wood, they were used for resting in a reclining position inside or outside the house.

Insect switches (*uaua*) are in great demand when mosquitoes (*namu*) become vicious:

These switches are quickly made by superimposing three sections from the tip end of coconut leaf midribs, each section carrying 10 to 20 leaflets. These are bound together by several transverse turns of fiber from the coconut leaf midrib or by passing two leaflets from the bottom midrib around the several midribs in opposite directions and tying the ends together with overhand knots. The switch is discarded when the leaflets become dry.

Brooms (*ulavale*) made from leaflet midribs are in common use to sweep up rubbish from the floor of dwelling or cook houses.

A short broom (*ulavale tumulu*, CB193) is made of midribs (*tua*) stripped from coconut leaflets and dried in the sun. These are caught about 1 inch from the proximal end in a three-ply braid of pandanus material (*ilio*) about ½ inch wide. The projecting midrib ends are bent over and braided with one of the *ilio* plies as a single ply. The braiding is continued for about 25 inches; for this length, about 170 midribs are required. When all the midribs have been added, the braiding is continued for about 6 inches and fastened with an overhand knot (*uakapou*). Starting with the commencement end, the braiding is rolled (*tupetupe*) on itself to form a convenient bundle of midribs. The free end of the braid is wound around the butt ends (*uailoua*) of the midribs and fastened with an overhand knot. The distal ends of the midribs are trimmed off to make bristles about 2 feet long.

A large broom (*ulavale uaua*) for sweeping the ground outside the houses is made from hard coconut midribs that have dried on the leaflets. The midribs are gathered together in the hand and spaced evenly around the end of a long handle, generally a length of *ngangie* wood about 4 feet long. The butt ends of the midribs are fastened to the handle with transverse turns of sennit, commencement and finishing ends being buried underneath the turns.

Lighting inside the dwelling house is usually provided by burning a few dry coconut shells on the floor. Today kerosene lanterns are fairly common,

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354 372 especially for evening prayers and for all-night vigils over a corpse. Out-of-doors light, on dark nights of the moon, is provided by small coconut-shell fires. When dry shells are plentiful a number of half shells are strung together on a strip of pandanus material (*lito*) about 2 to 3 feet long by passing one end of the pandanus strip through the soft eyehole of the half shell. Two parallel rows of these shells are placed on the ground and a few dry shells rested on top of the two rows. The shells are lit at the windward end with a *tauma* torch and burn with a fierce flame. Such a firelight torch of dry coconut shells is termed *lama ngaipa*.

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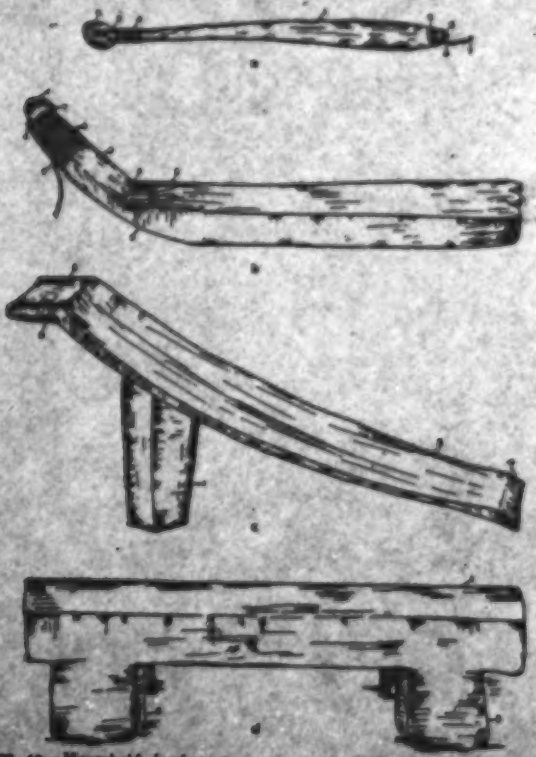

FIGURE 22.—Household implements. a, scraper (*tokoa*) (Cat.27) for removing husk in making coconut water container; handle of *ngaengae* wood (1) 13½ inches long, 1 inch thick at proximal end, and ½ inch thick at distal end; under surface of handle slightly concave longitudinally; distal end of handle inserted into carefully chipped hole

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in scraping shell (*vulayi*, *Nerita polita*) a little to left of apical whorl; four lashing turns of fine three-ply sennit braid (3) pass from handle through shell (2) where commencement end is buried, lashing continues with 16 transverse turns around distal end of handle (4); finishing of lashing buried beneath last turns; at proximal end a thin cord (7) of twisted vine fiber is attached so that the scraper may be hung up; two notches (5, 6) cut in handle; the two plies of vine cord lapped about notch (5) and fastened with figure-of-eight turns of fine, two-ply twisted sennit which pass around handle and between two notches; free end of sennit seized (8) around vine cord and finishing end buried. *b*, coconut stand grater (*nuai*) (C8:06): clam-shell grater (1) mounted on wooden stand (2) cut from solid block of *nonu* wood; horizontal base 1 foot 10⅝ inches long, 4½ inches wide at proximal end, and 2 inches thick; two triangular notches cut into proximal end said to be old form of ornament; oblique arm (3) 7 inches long, 3 inches wide, and 2 inches thick; angle (4) at which arm leaves horizontal base obtuse, under side (5) sloped and rounded off slightly; distal end of oblique arm (6) slotted for depth of 2 inches and concave so that convex outer surface of shell grater fits securely against arm; a piece of cork (7) fitted against inner concave surface of shell grater; lashing of three-ply braided sennit (8) applied over cork and around arm; lashing consists of 24 turns with buried commencement, and under normal conditions finishing end would also be buried, but in this grater free end is not cut off flush with transverse turns but is knotted and left free (9) so that grater may be hung up by free end. *c*, hack rest (*tohe*) cut from solid block of *nukunuku* wood (C8:61): 1, four-sided stand 8⅛ inches high at back and 5⅛ inches high at front, sides about 5⅛ inches wide; 2, main backrest, surface of which has slight transverse and longitudinal concavity, 2 feet 3½ inches long, 9½ inches wide, and ⅜ inch thick at edges; continued by horizontal extension rest (3) 4 inches long, ⅜ inch thick at sides; 4, end resting on ground has bevel 1½ inches wide; 5, under surface of horizontal extension (3) shaped obliquely, coming together in short sexual longitudinal ridge 1⅜ inches high. *d*, wooden headrest (*akaupe kahau*) (C8:84); roughly cut from single block of *pumpau* wood: 1, pillow section 1 foot 7 inches long, 5 inches wide, and 5⅛ inches thick; 2, four legs, each 5⅛ inches high, 3½ inches wide, and 2 inches thick; 3, slight skew at base of right front leg due to unskilled workmanship and not to design.

Furnishings of Pukapukan houses today include little that is modern. Occasionally one sees a European chair. Most houses have wooden chests or suitcases in which clothes are kept. European mosquito nets are in common use, and several houses proudly display antique sewing machines. Beyond these few articles and bundles of mats, the house interiors are generally quite bare.

FOOD UTENSILS

To harvest and husk coconuts, the climbing bandage (p. 196), husking stick, and carrying pole are used. The husking stick (*koyo*, C8:49) of *ngangie* wood is driven into the ground for two thirds of its length. Informants were sure that the short stick was the only type used formerly, the worker kneeling or squatting on the ground to husk. Today, a much longer stick is generally used, the husker standing and bending over the stick. The carrying pole (*ano*) is a convenient length of coconut leaf midrib on which a nick is made at each end. Pairs of nuts are slung over the pole, the

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Sleeping and floor mats are made of all three pandanus materials in various sizes for children and adults. The name of the material is added to the general name for a mat (*pango*) to distinguish the various types. Pukapukan mats in Bishop Museum are:

Name	Specimen Number	Material	Size	Wefts to Inch	Use
Pango lenpen	CB170	lauvilo	3'5" square	6	Crawling mat for child
Pango lauvilo ava	CB171	lauvilo	1'11" × 1'8"	5	Mat on which newborn infant is laid
Epango	CB174	lauvilo	5' × 6'6"	5	Durable undermat for sleeping
Pango lito	CB114	lito	5'5" × 4'7"	5	Floor mat
Pango lito	CB120	lito	5'8" × 3'7"	5	Floor mat
Pango lauvala pakupaku	CB123	lauvala pakupaku	4'10" × 4'	3	Coarse foundation mat placed under epango for sleeping
Pango lauoui (mixed) lauvilo ma lito	CB166	lauvilo and lito	5'1" × 3'5"	6	Durable sleeping mat
Pango kie wete	CB121	kie wete	5'4" × 4'	6	Soft mat used to cover body when sleeping

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All the above mats have the exposed sinistral finish described by Buck (27, fig. 118,*a*), except the last which presents two interesting variations in the fundamental plaiting technique:

> It is made of single elements to obtain a soft surface, but in order to bind the edges securely, the Samoan fine mat technique of a five-weft braid finish is used in defining the lower border. The commencement edge on the reverse side of the mat follows the method described by Buck (27, fig.161) and the continuation is the turned back fringe described by Buck (27, fig. 162 right). In the Pukapukan mat the dropped sinistrals are cut off flush with the lower border. The upper, finishing edge follows the Samoan method (27, figs.163,164) with the exceptions that the Pukapukan mat has a five-weft braid finish; the fringe ends produced by the projecting sinistrals and dextrals are cut off flush with the border; the right upper corner is not braided into a tail but the last three working dextrals are roughly interlocked by carrying the third working dextral from the end over the corner of the mat and pushing it under one sinistral, then with a forward turn, pushing it under two dextrals and cutting the ends off flush with the edge. The last two working dextrals from the end are turned back at the edge and pushed underneath the third dextral where it passes to the other side of the mat.

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All the mats have overlaid or through and through designs of the customary red-dyed pandanus material. Most of the designs are old but several are obviously modern, for example the turtle (*wosa*) and the house side (*falevale*) designs. The mats are more heavily laden with design than is usual because the plaiters felt that many designs were appropriate for what they knew would be museum pieces.

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day (one or two *pala* or albacore would be sufficient) the boys returned to the village and took the fish to the old men, who divided them primarily among themselves and secondarily among the people of the island if the catch was large. Reef fish, rock fish, and other non-deep-sea fish caught by the *tangata* were kept by the boys for their own food. The old men gave some of the talo they received each day in the form of gifts and contributions from the old men's households to the *tangata* boys to eat on their fishing expeditions. It was this food which the graduated girls helped the women of their households to prepare. After returning from fishing, the boys were free from formal duties for the rest of the day.

Seclusion

Some time after a group of boys and girls had attained adulthood a paternal lineage (*po*) might decide to hold a *haitau nakayoni*, an institutionalised seclusion period intended to fatten their bodies, whiten their skin, and so make good marriages for the children of the *po*:

Any number of boys and girls, generally from one to six from a lineage, might be secluded. There were separate houses of seclusion (*wale haitau*) for each sex. The *wale haitau* (any house chosen for the purpose) was made quite dark by covering the walls (*paipai te wale*) with several layers of overlapping wall sheets and mats. The floor was first covered with mats, then with *pulaka* and *lau hotonu* fern leaves over which coconut oil was liberally spread. The secluded children were made to lie on the leaves, their bodies and heads completely covered with mats. They might eat, lie, or sleep in any position provided they kept well covered. They were given especially fattening foods in large quantities. The food for the following day was pushed into the house at night under the lowest wall sheet so that no light might leak in. Two male relatives guarded the boys' house, and two female relatives the girls' house. The guards (*taute*) remained continuously outside the house to see that no prowlers entered. Accompanied by a guard, the children, covered tightly with mats bound with sennit, left the house at night to evacuate. The beach they went to was referred to as the *matu wale*, which was also the special term for defecating used only in reference to *haitau* children. The guards made sure the children did not stray abroad but returned to the house immediately. The young people were kept thus in seclusion for one moon.

When the house was opened up, the children, fat and fair, were taken to the beach to bathe. After being inspected by the members of the paternal lineage, each girl was dressed in two kilts, each boy in a new malo. Decorated with pearl-shell and flower ornaments, they were paraded through the village for all to admire. All the people came to see their beauty, expressing admiration in such terms as, "How beautiful, how fat, how fair", and wondering what men or women would be lucky enough to get such husbands and wives. Only a man who was a good fisherman and rich in nuts and talo could hope to get a fat, fair wife, and only a fat woman would be able to get a *haitau* husband. The parade over, the girls returned to normal life with the expectation of making a desirable marriage. For the boys there was often a further ceremony (*haitau lukipoko*):

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757 and then allowed to lie about until they are needed as waste cloth. The soiled sleeping
5 mats of adults may never be used by children, lest they be made sick by contact with
52 the stains. There is no other precaution adopted about sleeping mats or sitting mats;
352 these are used by members of the household or visitors.

GHOSTS

775 The fear of ghosts (*aitu*, old term; *yitolo*, modern term) is all-pervading
753 in Pukapuka. Not only children, who are brought up with a fear of ghosts, but adults also are thoroughly afraid of them and their power. Children are never left alone in the night lest ghosts worry them. In times of sickness, ghosts are supposed to be particularly troublesome, and it is necessary at these times to be especially careful of the well-being of ailing children, who are not left unguarded even during the day. Ghosts are believed to cause sickness.

SICKNESS AND HYGIENE

IDEOLOGY

753 The Pukapukan had no conception of the physical causation of sickness
571 or physical disability, unrelated to immoral, sacrilegious, or antisocial behavior of the afflicted individual or his relatives. Sickness was sent by gods
784 or by malicious spirits (*aitu*), in order to punish or revenge the breaking of a tapu, or other antisocial behavior. Punishment by sickness was considered perfectly just, even though the sick person had himself committed no infraction of tapu; all the members of the guilty one's family or household group were jointly responsible.

Types of antisocial behavior punished by sickness were infractions of the following: economic tapus, through non-observance or stealing; rules governing the disposal of property at death or general economic contracts; rules governing the treatment of wife, children, relatives, and old people; sexual tapus, committing of incest, adultery; obligations based on kinship or friendship relations; and tapus on religious or ceremonial objects and structures.
761 Deaths caused by suicide or homicide, or resulting from injuries received in
784 homicidal encounters were the only ones for which a material cause, unaffected by spiritual interference, was recognized. Even here, however, a closer analysis would probably show that death or injury was due to the withdrawal of protection by the god from one of his worshipers because the worshiper had at some time violated rules.

752 Sickness in general was *maki atua* (god-sent sickness). Special names
753 for types of sickness sent by gods, were: *maki kai kiko*, sickness caused by incest; *maki atua hino*, sickness caused by ancestral spirits. No single word
776 applies to accidental injury, which is given a descriptive term, as *maki no te yawaga o te atua ki lalo*, sickness resulting from a fall from a tree caused by a god.